I claim:

A printing machine having at least one roller and at least a first and a second functional element for executing cyclic movements synchronized with a rotational movement of the roller and driven, together with the roller, by a drive unit, comprising spring elements, respectively, assigned to the functional elements, said spring elements being stressed in one phase of the cyclic movement and relieved of stress in another phase of the cyclic movement, a respective phase wherein a first one of said spring elements is stressed being synchronized with a respective phase wherein a second one of said spring elements is relieved of stress.

- 2. The printing machine according to claim 1, including a cam disk for aiding in coupling the cyclic movement of each of the functional elements to the rotational movement of the roller.
- 3. The printing machine according to claim 1, wherein at least one of the functional elements is a sheet gripper mounted on the roller.
- 4. The printing machine according to claim 1, including another roller, at least one of the functional elements being a sheet gripper mounted on said other roller.

- 5. The printing machine according to claim 1, wherein a first one of the functional elements is a sheet gripper mounted on a feed extinder, and a second one of the functional elements is a sheet gripper mounted on an impression cylinder.
- 6 The printing machine according to claim 5, wherein a position for accepting a sheet to be printed from the feed cylinder and a position for surrendering the printed sheet are defined on said impression cylinder and, on a path from said surrender position to said acceptance position, said sheet gripper of said impression cylinder is actuatable for executing one of a movement stressing said spring element assigned thereto and a movement relieving said stress, while said sheet gripper of said feed cylinder is actuatable for executing one of a closing movement relieving the stress on said spring element assigned thereto and a closing movement stressing said spring element.

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- The printing machine according to claim 6, wherein said impression cylinder has a circumference that is a given number of times the circumference of said feed cylinder and includes a number equal to said given number of said sheet grippers rotating with said impression cylinder.
- 8. The printing machine according to claim 6, wherein said surrender position is defined so that the length of said path

of said sheet gripper from said surrender position to said acceptance position is from at least half to all of the circumferential length of said feed cylinder.

- 9. The printing machine according to claim 6, wherein the movement of said sheet gripper of said impression cylinder is a closing movement for passing through a bottleneck.
- 10. The printing machine according to claim 1, including another first functional element formed as a pregripper.

